Defense Acquisition University

Interim DoDI 5000.02

-- The Cliff Notes Version --

A Quick Glance at New Guidance

-- 17 December 2013 --

Defense Acquisition University/Midwest Region
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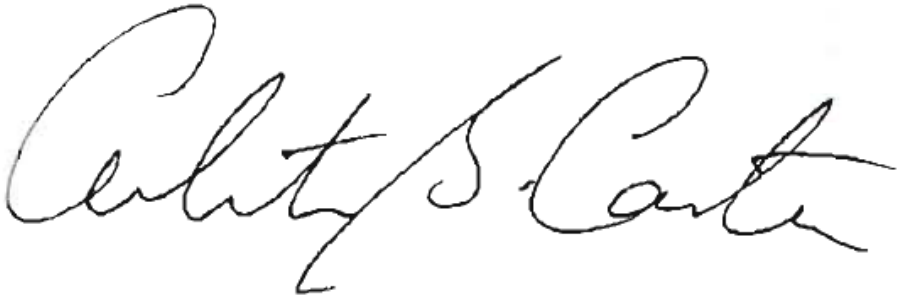
The New Department of Defense Instruction 5000.02

-- DEPSECDEF Direction --

I am directing the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), with the Department of Defense Chief Information Officer and the Director, Operational Test and Evaluation, to jointly prepare a revised DoDI 5000.02 within 180 days. The USD(AT&L) will draft a new instruction to address acquisition of services in the same time period.



The New Department of Defense Instruction 5000.02

-- USD (AT&L) Memo --2 December 2013 --

… developing a legislative proposal that will simplify the existing body of law

Program structures should always be tailored to the product being acquired.

The basic structure … unchanged with minor exceptions … introduces a "Req'ts Decision Point" and "Development RFP Release Decision Point."

The new Requirements Decision Point … starting point for the requirements analysis and allocation system engineering process … culminates in PDR.

The Development RFP Release Decision Point institutionalizes … "Pre-EMD Review" … most important single decision point in the entire life cycle … sets in motion everything that will follow in the product's life cycle.

… provided the opportunity to integrate several of the BBP initiatives

… integration of req'ts and acquisition is emphasized

… developing affordability constraints is a req'ts & programming community responsibility – not acquisition community or a cost estimator responsibility

AEs, PEOs and PMs are responsible and accountable … everyone else has a supporting or advisory role

If you have an ideas about how to improve this guidance, you are encouraged to submit them.

Frank Kendall

DoDI 5000.02 Overview

- Core Instruction
- 13 Enclosures
- ALL Enclosures have been Revised…
  - New Enclosures are highlighted in Red
  - Old Enclosures with Major Revisions are highlighted in Blue
- 150 Pages

Revised DoDI 5000.02 Structure

Core Instruction - Operation of the Defense Acquisition System

Enclosures

1. Acquisition Program Categories and Compliance Requirements
2. Program Management
3. Systems Engineering
4. Developmental Test and Evaluation (DT&E)
5. Operational and Live Fire Test and Evaluation
6. Life-Cycle Sustainment Planning
7. Human Systems Integration (HSI)
8. Affordability Analysis and Investment Constraints
9. Analysis of Alternatives
10. Cost Estimating and Reporting
11. Requirements Applicable to All Programs Containing Information Technology (IT)
12. Defense Business Systems (DBS)
13. Rapid Acquisition of Urgent Needs

Overarching Objectives

- **Decrease emphasis on “rules” and increase emphasis on process intent and thoughtful program planning**
- **Provide program structures and procedures tailored to the dominant characteristics of the product being acquired and to unique program circumstances, e.g., risk and urgency**
- **Enhance the discussion of program management responsibility and key supporting disciplines**
- **Institutionalize changes to statute and policy since the last issuance of DoD Instruction 5000.02 in December 2008**

Acquisition Milestones and Decision Points

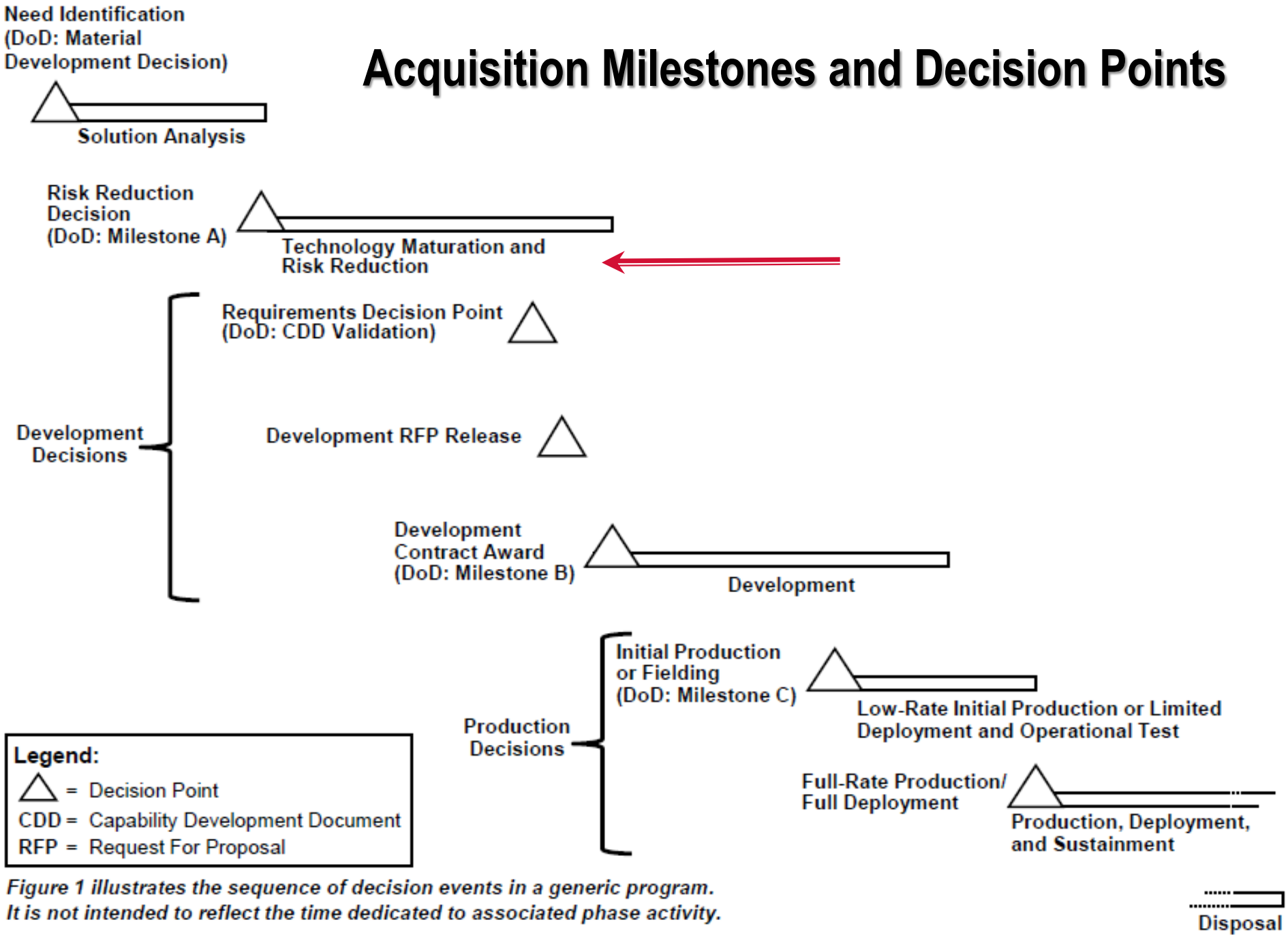
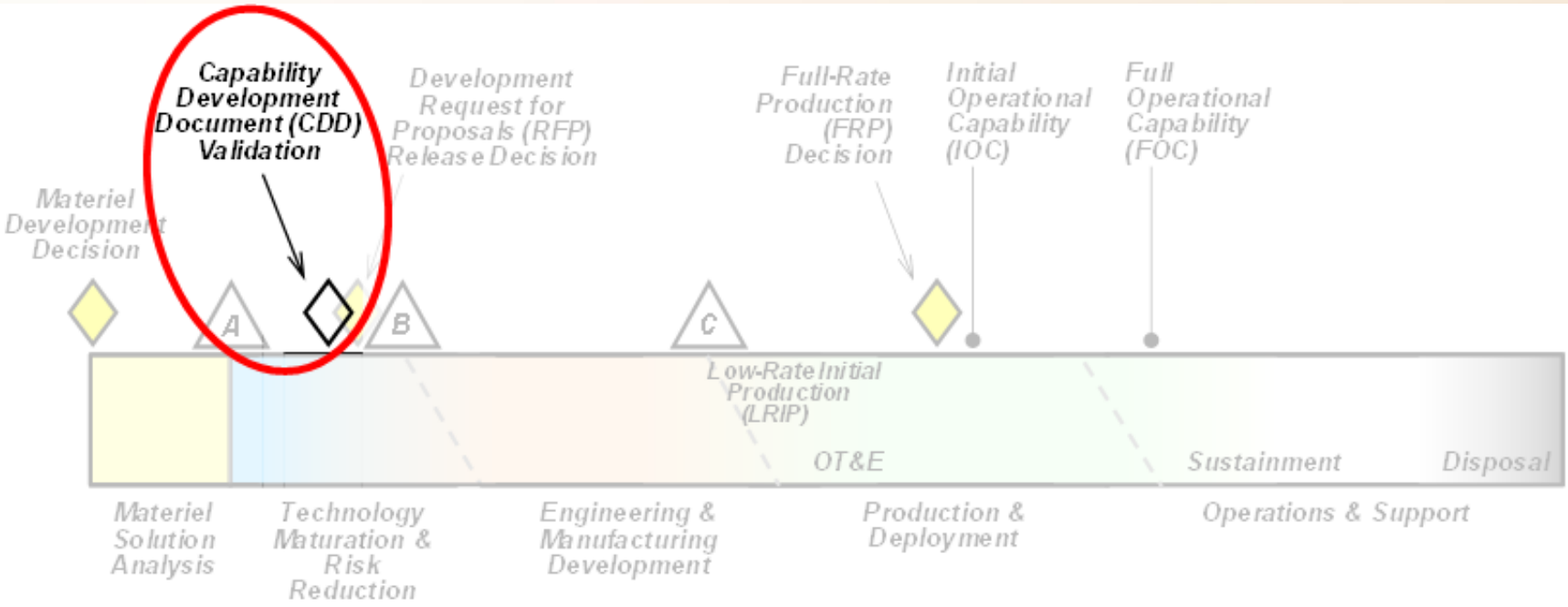


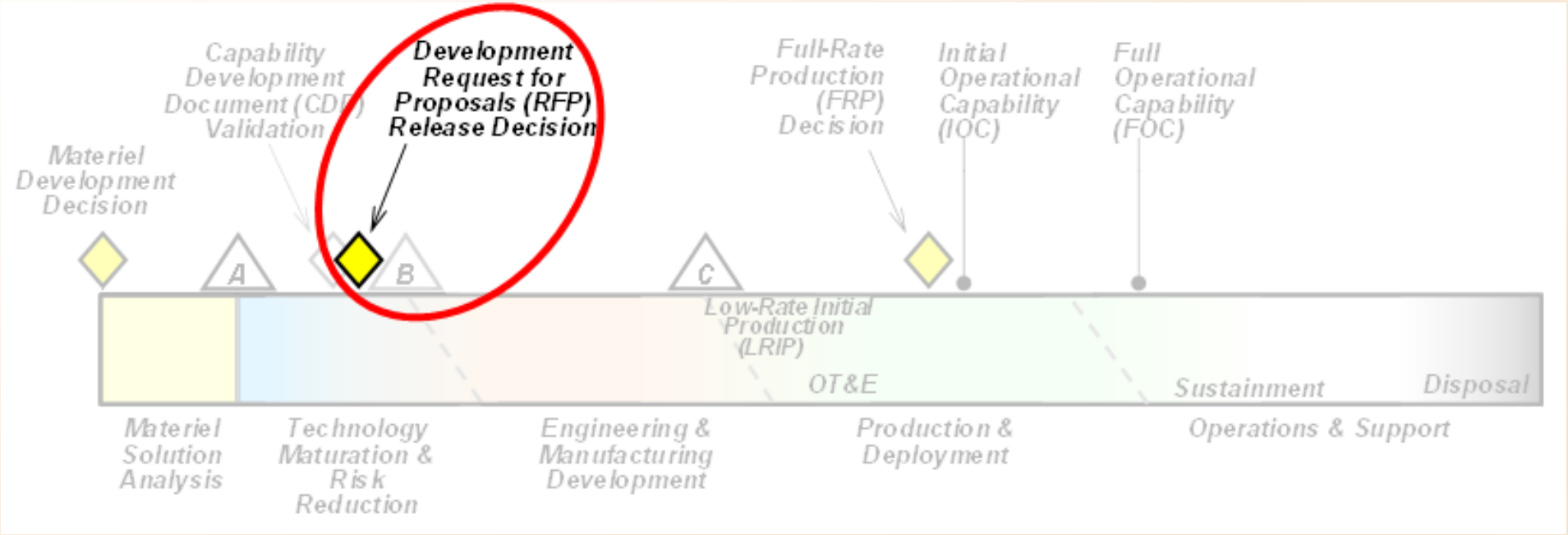
Figure 1 illustrates the sequence of decision events in a generic program.
It is not intended to reflect the time dedicated to associated phase activity.

Capability Development Document (CDD) Validation



- **CDD Validation precedes Development RFP Release Decision Point and provides basis for preliminary design activities and PDR**
- **Active engagement between acquisition and requirements leadership of the proposed requirements is essential to ensure validated requirements address priorities in affordable way**
- **Acquisition leadership will participate in validation authorities' review and staffing of CDD prior to validation to ensure requirements are technically achievable, affordable and testable, and fully informed by systems engineering trade-off analyses**

Development Request for Proposals (RFP) Release Decision



- **Development RFP Release Decision Point is to ensure that executable and affordable program has been planned using a sound business and technical approach**
- **Critical decision point … program will either successfully lead to fielded capability or fail, based on soundness of capability requirements, affordability, and executability**
- **Authorizes release of RFP for EMD and often LRIP options**
- **Sets in motion all that will follow … last point at which significant changes can be made without major disruption**

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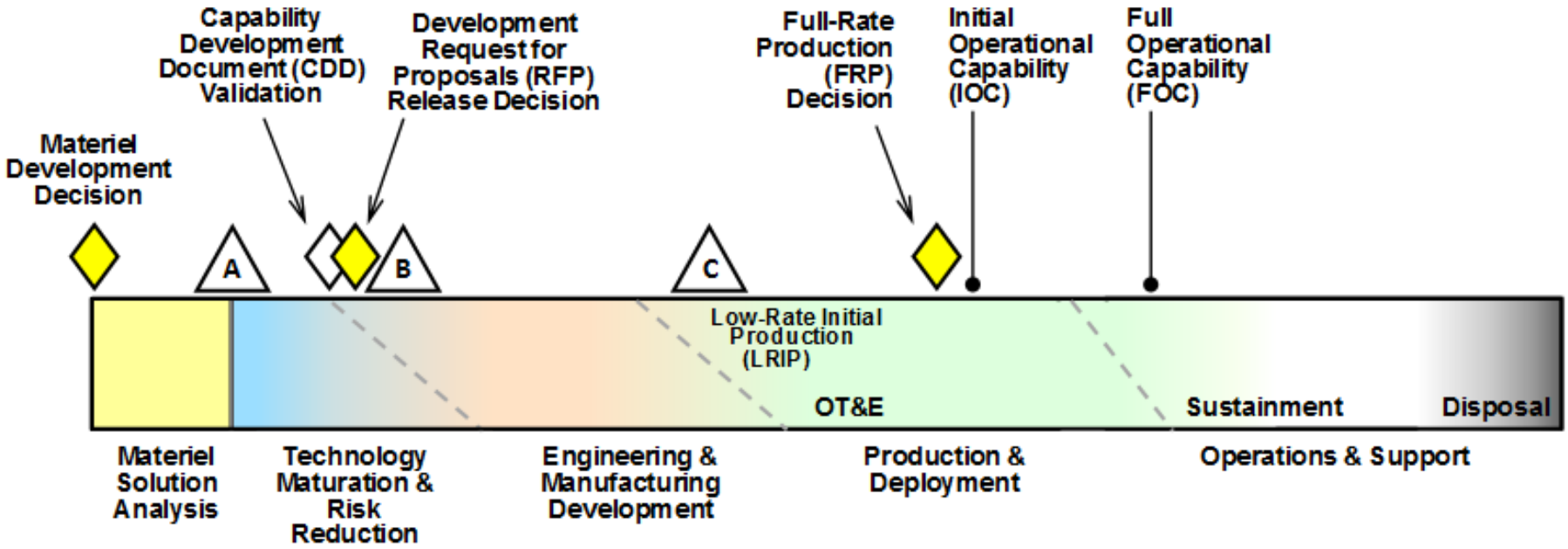
Product-Tailored Acquisition Models

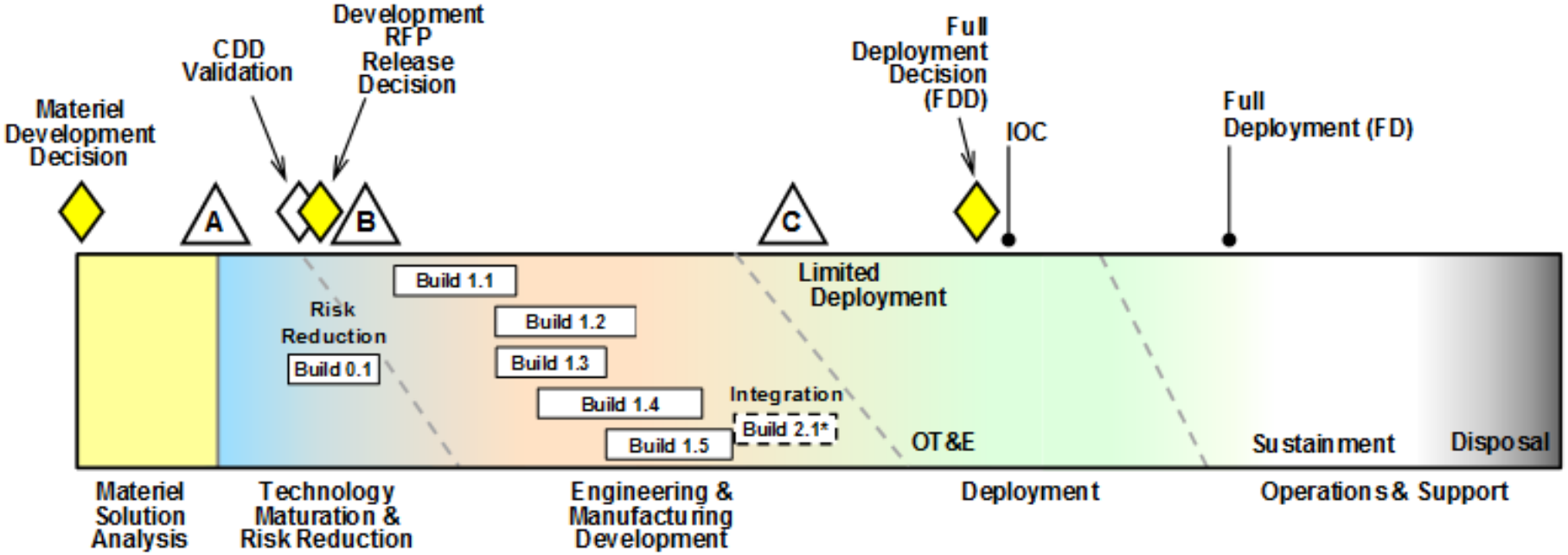
Models are not intended to be restrictive in nature -- designed as a starting point for program planning

Model 1: Hardware Intensive Program



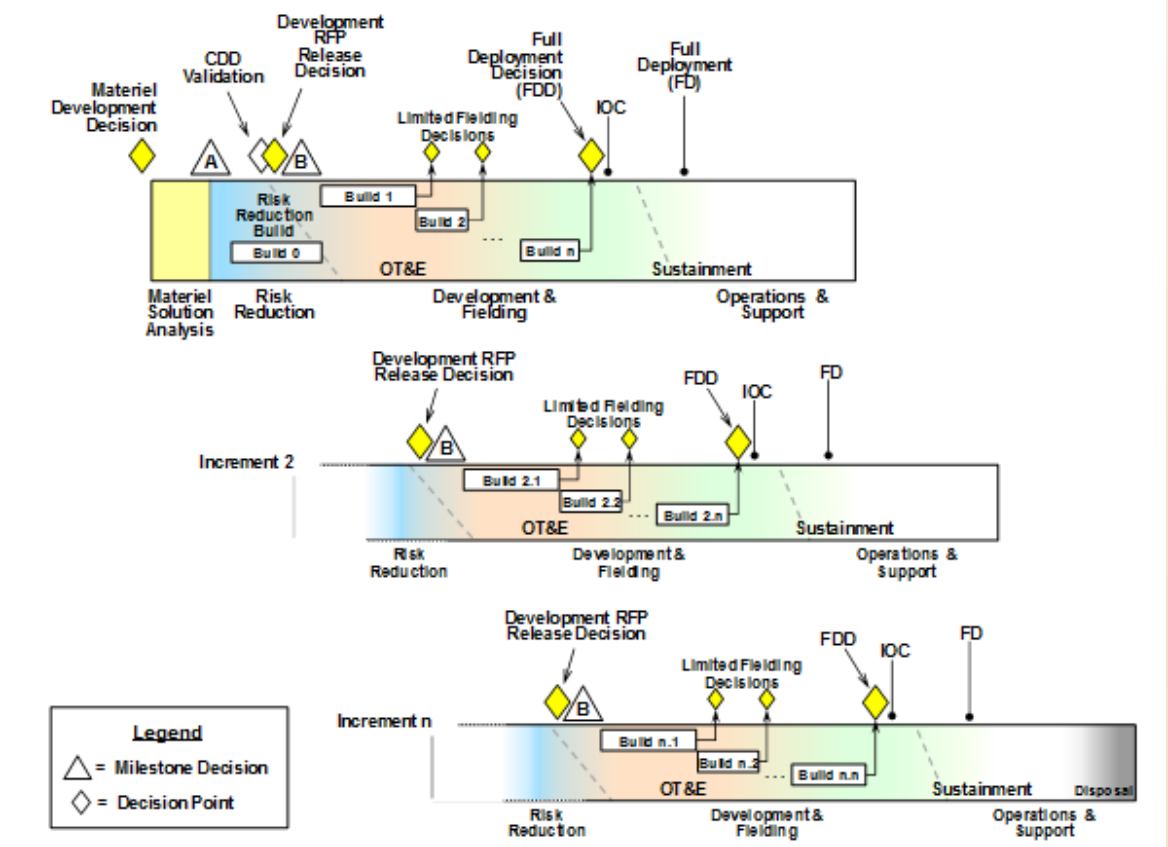
- "Classic" model that has existed in some form in all previous editions
- Hardware intensive development such as a major weapon systems platform
- Starting point for most weapon systems; however, almost always contain software development resulting in some form of Hybrid Model A

Model 2: Defense Unique Software Intensive Program



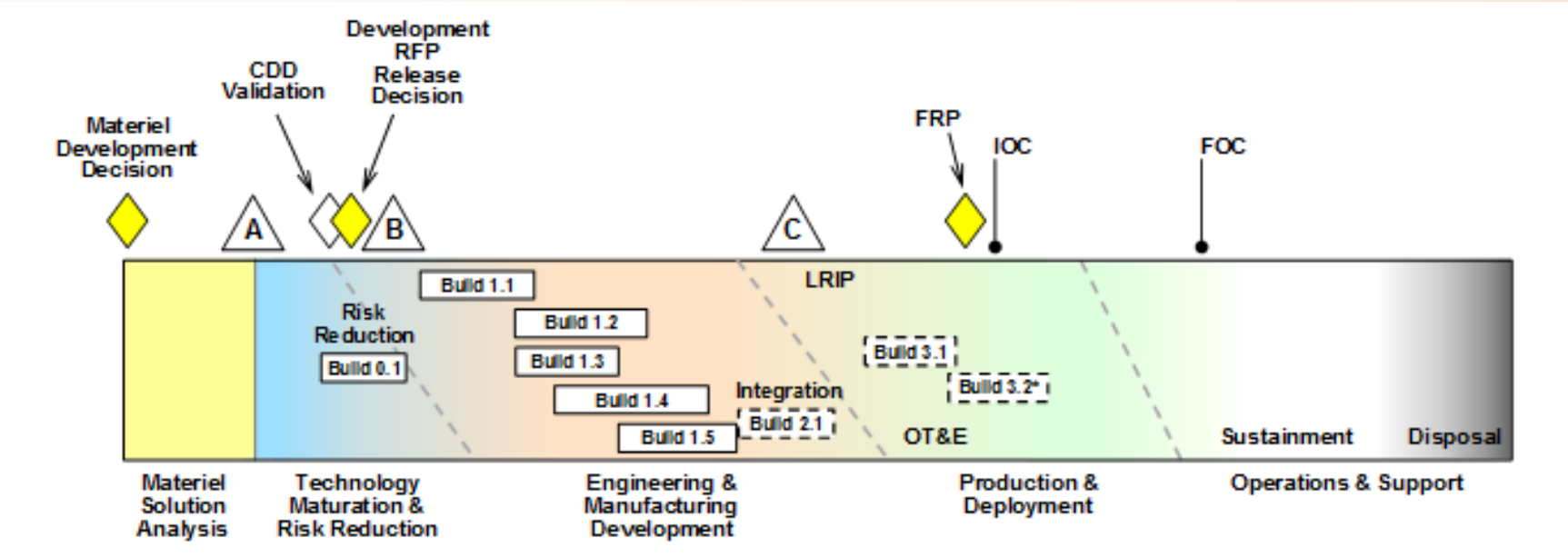
- Dominated by need to develop complex, usually defense unique, software program that will not be deployed until several software builds completed
- Key feature is planned s/w builds – series of testable, integrated capability subsets – which together with clearly defined decision criteria, ensure adequate progress before fully committing to subsequent builds
- Examples: military-unique command and control systems and upgrades to combat systems on weapons systems such as surface combatants and tactical aircraft

Model 3: Incrementally Fielded Software Intensive Program



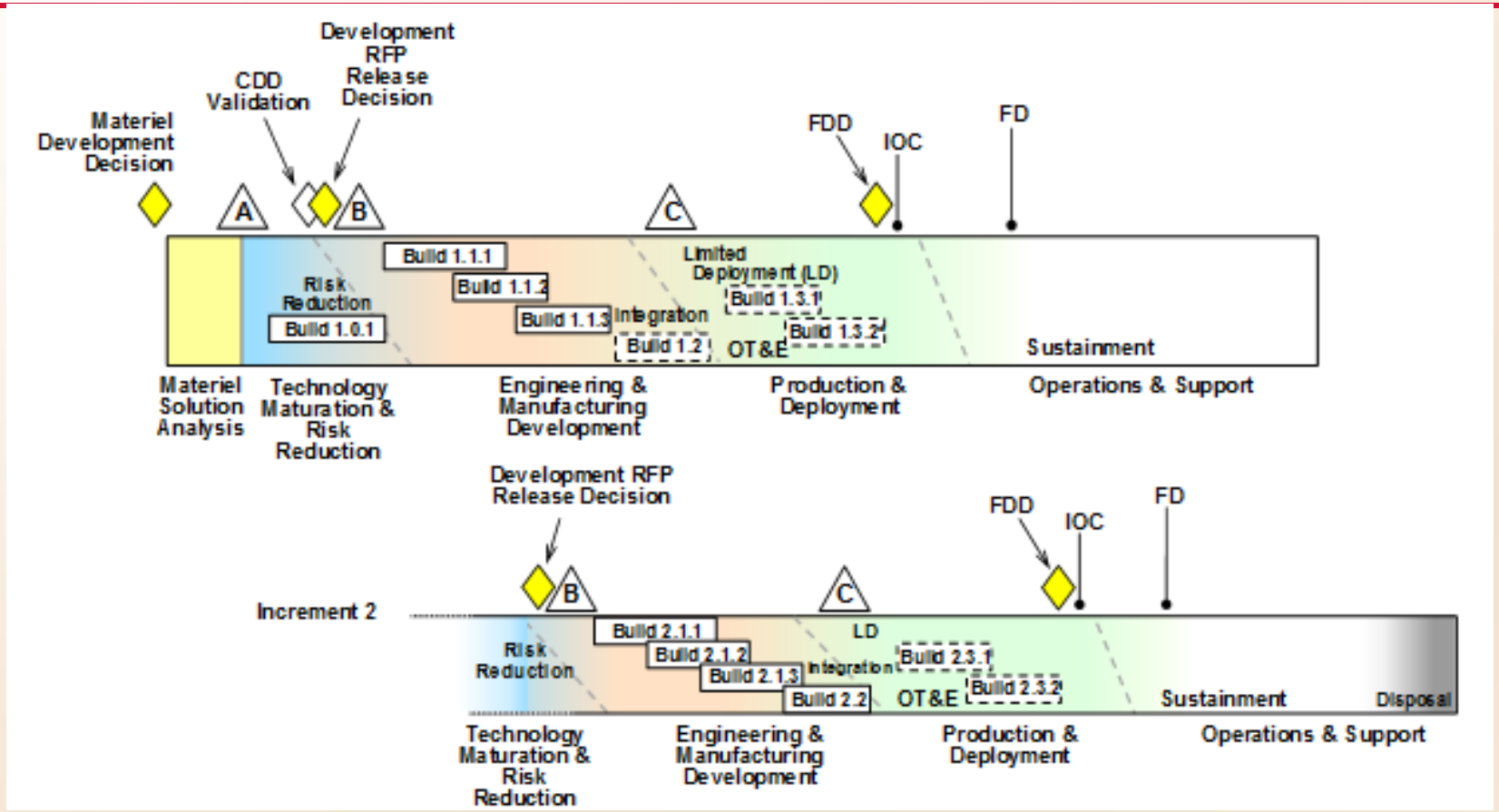
- Rapid delivery of capability using several limited fieldings in lieu of single MS-B and C and single full deployment
- Several builds and fieldings typically needed to satisfy approved req'ts for increment
- Applicable for COTS software, such as commercial business systems with multiple modular capabilities, are adapted for DoD

Hybrid Program A (Hardware Dominant)



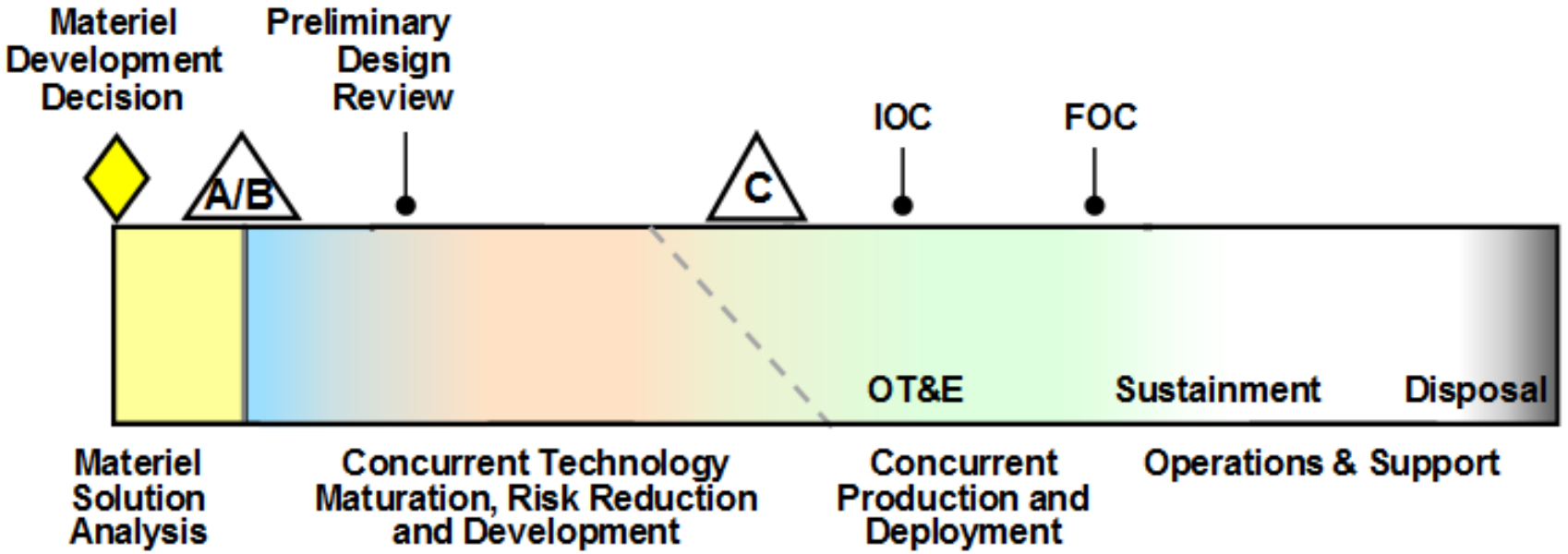
- Depicts how a major weapons system combines h/w development as basic structure with s/w intensive development occurring simultaneously
- Design, fab, and testing of physical prototypes may determine overall schedule, decision points, and milestones, but software development often dictates pace of program execution and requires tight integration
- Builds should lead to full capability needed to satisfy requirements and IOC
- Milestone B/C decisions include software functional capability development maturity criteria as well as demonstrated technical performance exit criteria

Hybrid Program B (Software Dominant)



- Depicts how s/w intensive product development can include mix of incrementally fielded software products or releases that include intermediate software builds
- Risk Management: Highly-integrated, complex s/w & h/w development risks must be managed throughout life cycle -- special interest at decision points and milestones

Model 4: Accelerated Acquisition Program



- Applies when schedule dominates over cost and technical risk considerations
- Compresses or eliminates phases accepting potential for inefficiencies in order to achieve deployed capability on compressed schedule
- Model shows one example of tailoring with many others possible for products that must be developed and acquired ASAP, usually motivated by potential adversary achieving technological surprise, and featuring greater acceptance of program risk

Acquisition Program Categories & Compliance Requirements (Enclosure 1)

- New ACAT definitions based on FY2014 constant dollars
  - ACAT I: > $480M in RDT&E or $2.79B in procurement
  - ACAT II: > $185M in RDT&E or $835M in procurement
  - ACAT IA: > $40M, all expenditures in single year
    > $165M, all expenditures from Materiel Solution Phase to deployment
    > $520M, all expenditures from Materiel Solution Phase to estimated useful life of the system
- One "stop shopping" for Category and Compliance information in tabular format
  - Consolidates information from various locations in prior 5000.02 and other regulations

Acquisition Program Categories & Compliance Requirements (Enclosure 1)

- **Nine Tables:**
  - Table 1: Description and Decision Authority for ACAT I-III Programs
  - Table 2: Milestone & Phase Information Requirements
  - Table 3: APBs (Baseline and Deviations)
  - Table 4: Statutory Program Breach and Change Definitions
  - Table 5: Recurring Program Reports
  - Table 6: Exceptions, Waivers, and Alternative Reporting Requirements
  - Table 7: CSDR System Requirements
  - Table 8: EVM Requirements
  - Table 9: Clinger-Cohen Act (CCA) Compliance

Acquisition Program Categories & Compliance Requirements (Enclosure 1)

- All requirements listed in alphabetical order.
- STATUTORY items in ALL CAPS
- Notes identify the requirement as STATUTORY or Regulatory

A dot (●) in a cell indicates applicability of the requirement to **program type** and **life-cycle event**, and represents the initial submission requirement. Moving right across a row, a checkmark (√) indicates the requirement for updated information.

Table 2. Milestone and Phase Information Re

INFO ION REQ NT	PROGRAM TYPE[1]				LIFE-CYCLE EVENT[1,2]								SOURCE	APPROVAL AUTHORITY
	MDAP	MAIS	ACAT II	ACAT ≤ III	MDD	MS A	CDD Val	Dev RFP Rel	MS		IPD Dec	OTHER		
	NOTES													
2366a/b CERTIFICATION MEMORANDUM	•					•			•	•			10 U.S.C. 2366a (Ref. (n)) 10 U.S.C. 23 ef. (n)) This instru	MDA
	STATUTORY for MDAPs at Milestones A and B. The MDA does not have authority to delegate this re ment. The associated procedures from 10 U.S.C. 2366a and 10 U.S.C. 2366b (Reference (n)) are re-stated in the Defense Acquisition Guidebook (Referen n)), and must be followed. A memorandum similar to that required at Milestone B is a Regulatory requirement at Milestone C if Milestone C is program init on.													
Acquisition Decision Memorandum (ADM)	•	•	•	•	•	•		•	•	•	•	•	This instruction	MDA
	Regulatory. Documents MDA decisions and direction.													
ACQUISITION PROGRAM BASELINE (APB)	•	•	•	•				•	✓	✓	✓	✓	10 U.S.C. 2435 (Ref. (n)) DoDD 5000.01 (Ref. (a))	MDA
	STATUTORY for MDAPs at Milestones B and C and the FRP decision; a Regulatory requirement at all other Type/Event combinations, including the required draft[5] at Development RFP Release. The draft[5] APB for the Development RFP Release Point is approved at Milestone B. See section 4 in this enclosure for requirements at other than the identified decision points. The MDA may approve the APB for some ship programs at Milestone A.													
ACQUISITION STRATEGY	•	•	•	•		•		•		✓	✓		SEC. 803, P.L. 107-314 ef. (p)) Core instruction, para. 2)(c) 10 U.S.C. 2350a (Re	MDA
	STATUTORY for MDAPs at Milestone A; else Regulatory at other events and for other program types. The Acquisiti egy will include STAT TORY and Regulat y information. - Use "Acquisition Strategy Outline" at https://dap.dau.mil/p /Lists/Policy%20Documents/Attachments/3267 pproved.TDS_AS_Ou e.docx. - For , prepare an Acquisition Approach as part of the Bu s Case instead of an Acquisition Strategy (furt d in paragraph 5.a.(1) nclosure 12 of th truction). - F ams responding to Urgent Needs, see Table 1 closure 13. - Ns, JEONs, Warfighter SIG urgent needs, S f Defense RAA determinations, or DoD Comp en requested for UONs py of y is due to the Director, JRAC, within 3 bu s of MDA approval.													
Table Notes: 1. A dot (●) in a cell indicates the specific and life-cycle event, and represents the across a row, a checkmark (✓) indica 2. All of the "Life-Cycle Events" will not					3								on for the identified events will be submitted r requirements that have been finalized and ap nt RFP Release Decision Point do not have t red. In that case, updated documents will be le, "draft" means a "DoD Com	ess days before the pla view. ible authority in suppor o Milestone B unless c

the requirement to program type
on requirement. Moving right
nt for updated information.
o all "Program Types."

Columns simplify finding requirements

- Notes accompany most rows to explain the requirement, limit or extend the requirement's applicability to program type and/or life-cycle event(s), or explain any special conditions.
- A new column identifies the Approval Authority.

Program Management (Enclosure 2)

- Acquisition Chain of Command and PEO and PM Assignments
- Program Management Responsibilities
- Program Office Structure and Organizations
- Acquisition Strategies
  - Business Approach and Risk Management
  - Competition
  - Intellectual Property (IP) Strategy and Open Systems/Architectures
- Program Baseline Development and Management
- Program Management Tools
  - Earned Value Management (EVM)
  - Risk Management
  - Cost Baseline Control and Use of “Should Cost” Management
- International Acquisition and Exportability
- Industrial Base Analysis and Considerations
- Life-cycle Management of Information and Data Protection

Systems Engineering (Enclosure 3)

- Sections (new sections in Red)
  1. Purpose
  2. System Engineering Plan
  3. Development Planning
  4. Systems Engineering Trade-Off Analyses
  5. Technical Risk and Opportunity Management
  6. Technical Performance Measures and Metrics
  7. Technical Reviews
  8. Configuration Management
  9. Modeling and Simulation
  10. Manufacturing and Producibility
  11. Software
  12. Reliability and Maintainability (R&M)
  13. Program Protection
  14. Open Systems Architectures
  15. Corrosion Prevention and Control
  16. ESOH
  17. Insensitive Munitions
  18. Item Unique Identification
  19. Spectrum Supportabiltiy
  20. Design Reviews
  21. Program Support Assessments (PSAs)

Systems Engineering (Enclosure 3)

- Systems engineering trade-off analysis required to support CDD Validation DP
  - Reassessed over life cycle as system requirements, design, manufacturing, test and logistics activities mature and evolve
- Technical risk management goal is to both "mitigate risks and create opportunities" for tech development that have positive impact on performance objectives and thresholds
- Program Protection
  - Integrating process for managing risks to DoD warfighting capability from foreign intelligence collection; hardware or software, and cyber vulnerability or supply chain exploitation; and battlefield loss throughout program life cycle
  - Program Managers will submit program's Component CIO-approved Cybersecurity Strategy as part of every Program Protection Plan (PPP)
  - PPP submitted for MDA approval at each M/S review, beginning with MS-A
  - For MDAPs at MS-B, DoD Component-approved draft PPP provided to DASD(SE) 45 days prior to Development RFP Release Decision Point

Developmental Test and Evaluation (Encl 4)

- Chief Developmental Tester for MDAPs and MAISs
- Lead DT&E (Government) Organization for MDAPs
- TEMP at all Milestones (no more Test & Evaluation Strategy at MS-A)
- Major emphasis on use of Government Test Facilities (GTF) as preferred strategy (GTFs--mandatory for software unless an exception can be justified)
- Emphasis on:
  - Use of scientific and statistical rigor when developing T&E program
  - Program Protection and Cybersecurity
  - Interoperability Testing
- Software test automation strategy to include when key automation software components or services will be acquired and how decisions will be made required in TEMP at MS-A
- Reliability Growth Curve(s) included in the MS-B TEMP (updated in all future TEMPs)
- For accelerated acquisition and urgent programs, levels of developmental testing required will be highly tailored to emphasize schedule over other considerations

Operational and Live Fire T&E (Encl 5)

- OT&E planning moved to left
  - T&E WIPT formed at MDD or as soon as practical
  - OTAs comment on OT&E implications of CONOPs after MDD
  - TEMP at all Milestones (no more Test & Evaluation Strategy at MS-A)
  - Metrics on completeness of design information in MS-A TEMP
- New section on Software Testing
  - Plan for use of system logs starting at MS-B
  - Demonstration of end-to-end regression testing at or before IOT&E
  - Demonstration that maintenance test environment replicates operations environment at or before IOT&E
  - Includes definition for risk-based OT&E and interoperability
  - Full IOT&E prior to Full Deployment Decision for incrementally fielded software intensive programs

Life Cycle Sustainment Planning (Encl 6)

- Program Manager will develop and implement affordable and effective performance-based product support strategy
  - Stronger emphasis on "*affordable*"
  - Requirement to drive competition at both the prime and subcontract levels
- Employ "Should-Cost" management and analysis approach to identify and implement system and enterprise sustainment cost reduction initiations
- Life-Cycle Sustainment Plan (LCSP) -- Required for ALL programs, updated at each decision point, starting with MS-A (if applicable)
  - Updated at a minimum of every 5 years post Initial Operational Capability (IOC)
- Sustainment Metrics – Availability (KPP), Material Reliability, Operating and Support Cost, Mean Down Time…others as needed
  - Tied to ongoing Should Cost analysis

Human System Integration(Enclosure 7)

- The Program Manager will plan for and implement Human System Integration (HSI) beginning early in the acquisition process and throughout the product life cycle. Addressing:
  - Human Factors Engineering
  - Personnel
  - Habitability
  - Manpower (Military/Civ/Contractor Mix)
  - Training
  - Safety and Occupational Health
  - Force Protection and Survivability

Affordability Analysis and Investment Constraints (Enclosure 8)

- Responsibility for DoD Component Leadership
  - Involves programming, resource planning, requirements, intelligence, and acquisition communities
- Required for entire life cycle of planned system, not just FYDP
- Constraints are developed "top down"
  - As compared to cost estimates which are generated bottoms up or by other methods
- Life Cycle Affordability Analysis -- required for all ACAT I and IA programs at Component level -- includes their entire portfolio groups in reasonable categories. Considerations:
  - Future Budget, Time horizon (nominally 30-40 years), current fiscal guidance, OSD inflators…etc
  - Subdivided into Portfolios to facilitate Trade off Analysis
- CAE will manage lower ACAT programs similarly

"Department has a long history of starting programs that proved to be unaffordable"

Analysis of Alternatives (Enclosure 9)

- Director of Cost Assessment and Program Evaluation (DCAPE) develops and approves study guidance for AoA for potential and designated ACAT I and IA programs and for each joint military or business requirement for which Chairman of the Joint Requirements Oversight Council (JROC) or Investment Review Board is validation authority. DCAPE will require, at a minimum
  - Full consideration of possible tradeoffs among life-cycle cost, schedule, and performance objectives (including mandatory key performance parameters) for each alternative considered
  - Assessment of whether joint military requirement can be met in manner consistent with cost and schedule objectives recommended by JROC or other requirements validation authority
  - Consideration of affordability analysis results and affordability goals if established by MDA

Cost Estimating and Reporting (Encl 10)

- DCAPE conducts Independent Cost Estimates (ICE) for MDAPs/MAIS for which USD(AT&L)) is MDA or as requested for other MDAPs/MAIS programs
  - In advance of any LRIP or Full Rate Production, when required by Title 10, upon request of MDA, or when DCAPE considers it appropriate
- Very specific, detailed instructions for DCAPE to be proactive with continual program involvement. For example:
  - DCAPE must be with service representatives and the program office NLT 180 day prior to Development RFP Release, and will then determine cost analysis to be accomplished….is granted full access to all data…etc.
- Cost Analysis Requirements Description (CARD)
  - Prepared by PM--draft presented to DCAPE NLT 180 days prior to planned OIPT meeting
  - Final version due 45 days before meeting
  - Required updates prior to Development RFP Release Point, in addition to MS reviews
  - More detailed as program moves from Milestone A to B to C…
- Cost Reporting
  - Continue to use Cost and Software Data Reporting (SCDR), Integrated Program Management Reports as primary sources
  - Visibility and Management of Operating and Support Costs (VAMOSC) systems must include all support materials used for cost estimates -- information reviewed annually

Information Technology (Enclosure 11)

- Clinger-Cohen – still applies to all IT investments including NSS -- Compliance Requirements Table moved to Enc 1
- Clinger-Cohen requirement for DoD CIO confirmation for MDAPs/MAISs removed
  - Sponsoring Component/PM satisfies requirements with Component CIO confirmation
- Post Implementation Reviews (PIR)
  - Who: Sponsoring Component CIO and PM
  - What: Has desired capability been met?
  - When: After IT deployed
  - Why: Continuation, modernization, or termination decision
- Cybersecurity strategy required at MS A as Appendix to Program Protection Plan
  - DoD CIO approval required for ACATS ID, IAM, and IAC
  - Risk management framework initiated as early as possible
- Cloud Computing -- DISA is the DoD Enterprise Cloud Service Broker
  - PMs coordinate use of cloud computing services through DISA
- DoD Data Center Consolidation
  - DoD CIO must approve funds for data services or data centers
  - PM requests use through Component CIO
  - Implementation guidance available in Defense Acquisition Guidebook

Defense Business Systems (DBS) (Encl 12)

- Definition of DBS unchanged -- still applicable for DBS efforts > $1M
- Business Capability Definition (BCD) approval precedes MDD
  - DBS requirements generally not generated via JCIDS
- BCD Problem Statement serves as capability requirements document (ICD)
  - Approved by Investment Review Board (IRB) Chair
- DBS Investment Management Process Guidance provides additional detail on process, along with roles and responsibilities
- DBS will employ one of the draft models or effective variant approved by MDA
- Milestone/Decision Point review requirements when MDA is at OSD -- CAE will:
  - Sign Business Case
  - Assure solution compliant with statutes and regulations
  - Recommend solutions to any applicable issues
- MS-A (or development start) to IOC must be < 5 years
- Functional Sponsor defines IOC prior to Development RFP Release Decision Point

Rapid Acquisition of Urgent Needs (Enclosure 13)

- Applicable only to needs below ACAT I that can be met in < 2 years
- Funds will normally have to be reprioritized/reprogrammed since PPBE process not appropriate for rapid acquisition
- Types of Urgent Needs
  - JUONs/JEONs
  - Component specific UONs
  - Critical Warfighter Issues identified by Warfighter Senior Integration Group
  - SECDEF Rapid Acquisition Authority (RAA) Determination
- "DoD Components will use all available authorities to expeditiously fund, develop, assess, produce, deploy and sustain..."
  - "Streamline strategies and oversight"
  - "parallel rather than sequential"
  - "Formal milestone events may not be required"
  - "MDA can authorize production at same time as development"
  - "Regulatory requirements will be tailored or waivered"

Rapid Acquisition of Urgent Needs (Enclosure 13)

- NLT 1 year after rapid acquisition enters Ops and Support, disposition analysis held to determine
  - Termination: Demilitarization or Disposal
  - Sustainment for a current contingency – retains priority of action
    - Sustainment decisions valid for no more than 2 years
  - Transition to a Program of Record -- if a needed, enduring capability remains
- Table 10 provides info requirements unique to Rapid Acquisition of Urgent Needs
  - Assessment Approach
  - Course of Action Analysis
  - Rapid Acquisition Analysis
  - Disposition Authority Report to CAE

Takeaways

- Still policy, but …
  - Tone shifts from compliance to thoughtful planning
  - Tailor when appropriate and approved
  - Reasoning and real life trump document
- System Engineering tradeoffs & affordability analyses are ever-present major themes
- Should Cost “sprinkled” throughout – making part of the culture
- Different challenges for software intensive programs recognized
- Cybersecurity and Program Protection emphasized
- 2008 DoDI 5000.02 Services Acquisition policy still in effect until new DoDI developed
- Next Steps …
  - What’s applicable to me?
  - Read section/enclosure in detail
  - Engage your service community
- Stay tuned … more to come
- Provide Feedback as you start to implement